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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,633	08/20/2001	Gnanaprakasam Pandian	CIS0076US	6410

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CAMPBELL STEPHENSON ASCOLESE, LLP  
4807 SPICEWOOD SPRINGS RD.  
BLDG. 4, SUITE 201  
AUSTIN, TX 78759

EXAMINER
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JUNTIMA, NITTAYA

ART UNIT	PAPER NUMBER
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2616

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06/29/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

09/933,633

Applicant(s)

PANDIAN ET AL.

Examiner

Nittaya Juntima

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-6,8,9,11-15,17,18,21 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9,11-13 and 21 is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8,14,15,17,18 and 24-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is in response to the amendment filed on 4/17/2007.
2. Claims 2, 7, 10, 16, 19-20, and 22-23 were cancelled.
3. Claims 9, 11-13, and 21 are allowed.
4. Claims 1, 3-6, 8, 14-15, and 24-26 are currently rejected under 35 U.S.C. 103(a).
5. Claims 17 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### *Claim Rejections - 35 USC § 112*

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-6, 8, 14-15, 17-18, and 24-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, there is no relationship between a second message and the first modified message. Therefore, the claim is vague and indefinite.

In claim 14, there is no relationship between a plurality of SVCs and the first modified message. Therefore, the claim is vague and indefinite.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3-5, 14-15, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang (US 5,781,529) in view of Nagami (US 6,304,577 B1).

Regarding claim 1, Liang teach a method comprising:

A first network switch (a node that receives the DTL shown in Fig. 4 and has the same node ID as that indicated in ELEMENT#2 of the DTL) receiving a message (the CALL SETUP message, Fig. 3) at one (input port) of a plurality of interfaces, wherein the message comprises data (completed ELEMENT#1 – input slot ID, input link, and VPI/VCI fields filled with appropriate values) (col. 5, lines 66-col. 6, lines 1-58, col. 7, lines 48-66 and Fig. 5).

The first network switch generating first data (completed ELEMENT#1 and completed ELEMENT#2) as a function of both the data (completed ELEMENT#1) and first interface identifier data (completed ELEMENT#2), wherein the first interface identifier data corresponds to the one of the plurality of interfaces (completed ELEMENT#2 contains input slot ID value inserted by the receiving node) (Figs. 4 and 5, col. 6, lines 1-8, and col. 7, lines 48-66 and col. 10, lines 42-46).

The first network switch replacing the data in the message (the CALL SETUP message) with the first data (completed ELEMENT#1 and completed ELEMENT#2) thereby creating a

first modified message (the fields in ELEMENT#1 and ELEMENT#2 have now been filled with appropriate values and the structure of the DTL in Fig. 4 is not changed, col. 7, lines 48-66).

The first network switch outputting the first modified message at another (output port) of the plurality of interfaces to the first network switch (col. 7, lines 63-66).

Liang does not teach that the first network switch receiving a second message, wherein the first network switch comprises a plurality of SVCs each one of which processes communication data, and the first network switch releasing several of the plurality of SVCs in response to first network switch receiving the second message.

However, Nagami teaches a network switch (VC setup/release section 112 of a node101A, Fig. 2) receiving a second message (release order from VC managing section 111, Fig. 2), wherein the network switch comprises a plurality of SVCs (unused SVCs) each one of which processes communication data, and the first network switch releasing several of the plurality of SVCs in response to the network switch receiving the second message (Fig. 3, col. 3, lines 5-7 and 47-55, see also col. 2, lines 46-48 and col. 4, lines 54-65).

Given the teaching of Nagami, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Liang such that the first network switch receiving a second message, wherein the first network switch comprises a plurality of SVCs each one of which processes communication data, and the first network switch releasing several of the plurality of SVCs in response to first network switch receiving the second message would be included as claimed. The suggestion/motivation to do so would have been to keep the number of unused SVCs within a range of N1 and N2 (Nagami, col. 3, lines 47-55).

Regarding claims 3, 4, and 5, Liang teaches the first network switch creating a first SVC/allocating a portion of its data processing resources (VPI/VCI) for processing communication data, wherein the first SVC is created/the portion of its data processing resources is allocated in response to receiving the message (an incoming CALL SETUP message), a second network switch (a node that receives the DTL shown in Fig. 4 and has the same node ID as that indicated in ELEMENT#3 of the DTL) receiving the first modified message (the CALL SETUP message with completed ELEMENT#1 and completed ELEMENT#2) at one (input port) of a plurality of interfaces (col. 7, lines 48-66), and the second network switch creating a second SVC for processing communication data, wherein the second SVC is created in response to the second network switch receiving the first modified message. See col. 7, ll 56-66, col. 10, lines 42-46, see also col. 2, ll 49-57.

The combined teaching of Liang and Nagami fails to explicitly teach that the first/second network switch storing data relating to the first/second SVC / the allocated portion of its data processing resources into a memory location, wherein the memory location corresponds to the first/second data.

However, an official notice is taken that data relating to the first/second SVC/ the allocated portion of its data processing resources, e.g. a VPI/VCI, input port, and output port, are usually stored into a memory location of the node in order to keep track of the resources being allocated and the SVC being established.

Therefore, since the first/second SVC/the allocated portion of the switch's data processing resources, i.e. VPI/VCI, input port, and output port, are designated by a receiving node and correspond to the first/second data (completed ELEMENT#1, 2 / ELEMENT#1,2,3)

(col. 7, ll 56-65), it would have been obvious to one skilled in the art at the time the invention was made to modify the combined teaching of Liang and Nagami to include that the first/second network switch storing data relating to the first/second SVC/ the allocated portion of its data processing resources into a memory location, wherein the memory location corresponds to the first/second data in order to keep track of the resource being allocated and the first/second SVC being established.

Regarding claim 24, Liang teaches a second network switch (a node that receives the DTL shown in Fig. 4 and has the same node ID as that indicated in ELEMENT#3 of the DTL) receiving the first modified message (the CALL SETUP message with completed ELEMENT#1 and completed ELEMENT#2) at one (input port) of a plurality of interfaces (col. 7, lines 48-66).

The second network switch reading the first data (completed ELEMENT#1 and completed ELEMENT#2 in Fig. 4) contained in the modified message (the CALL SETUP message with completed ELEMENT#1 and completed ELEMENT#2). The node must read ELEMENT#1 and #2 in order to locate its node ID contained in the next ELEMENT#3 of the DTL, col. 7, lines 48-66.

The second network switch generating second data (completed ELEMENT#1, completed ELEMENT#2, and completed ELEMENT#3) as a function of the first data (completed ELEMENT#1 and completed ELEMENT#2) and second interface identifier data (completed ELEMENT#3), wherein the second interface identifier data corresponds to the one of the plurality of interfaces (completed ELEMENT#3 contains input slot ID value inserted by the

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receiving node whose ID is the same as that indicated in ELEMENT#3) (col. 7, lines 48-66 and col. 10, lines 42-46).

The second network switch replacing the data in the message (the CALL SETUP message) with the second data (completed ELEMENT#1, completed ELEMENT#2, and completed ELEMENT#3) thereby creating a second modified message (the fields in ELEMENT#1, ELEMENT#2, and ELEMENT#3 have now been filled with appropriate values and the structure of the DTL in Fig. 4 is not changed, col. 7, lines 48-66).

The second network switch outputting the second modified message at another (output port) of the plurality of interfaces to the second network switch (col. 7, lines 63-66).

Regarding claim 25, Liang further teaches generating the first data comprises concatenating the first interface data with the data (Figs. 4 and 5, col. 6, lines 1-8, and col. 7, lines 48-66 and col. 10, lines 42-46).

Claims 14, 15, and 26 are a computer readable medium claims corresponding to method claims 1, 3, and 25, respectively, and therefore are rejected under the same reason set forth in the rejection of claims 1, 3, and 25, respectively, with the addition of instructions executable by a processor contained in a network switch (Liang, operations conducted by processor means at a receiving node, col. 9, lines 25-col. 10, lines 41) implementing the method of claim 1 and the network switch creating a plurality of SVCs (Nagami, unused SVCs were created, col. 3, lines col. 3, lines 47-55).



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9. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang et al. ("Liang") (USPN 5,781,529) in view of Nagami (US 6,304,577 B1) and further in view of the admitted prior art (Background of the Invention section of the specification).

Regarding claim 6, Liang teaches that the message (the CALL SETUP message with Routing DTL information element, col. 7, ll 48-63) comprises call reference data (call reference, Fig. 3). However, Liang fails to explicitly teach the first network switch (a receiving node) copying the call reference data into a memory location which corresponds to the first data.

The admitted prior art teaches that each ATM switch (the first network switch) must copy a call reference (the call reference data) into a memory location which corresponds to the switch and SVC or VPI/VCI (specification, page 1, ll 15-page 2, ll 9).

Therefore, since the first data includes NODE ID of the first network switch (see rejection of claim 1), it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Liang to include the first network switch copying the call reference data into a memory location which corresponds to the first data. The suggestion/motivation to do so would have been to enable the first network switch to identify the corresponding SVC and allocated resource to be released when the call through the switch is to be terminated.

Regarding claim 8, Liang teaches that the first network switch (a node that receives the CALL SETUP message with Routing DTL information element, col. 7, ll 48-63)) must create a first SVC (VPI/VCI, col. 10, ll 42-52 and 56-63) for processing communication data transmitting between at least two end devices (originating and terminating DTEs, col. 4, ll 65-col. 5, ll 3. Liang further teaches call reference data (call reference, Fig. 3).

However, Liang does not teach the first network switch mapping the first SVC to the call reference data.

The admitted prior art teaches that each ATM switch (the first network switch) must map a SVC to a call reference (the call reference data) for SVC release as part of a call termination (specification, page 1, ll 15-page 2, ll 9).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Liang to include the first network switch mapping the first SVC to the call reference data as recited in the claim. The suggestion/motivation to do so would have been to enable the first network switch to identify the corresponding SVC and allocated resource to be released when the call through the switch is to be terminated.

### *Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nittaya Juntima  
June 22, 2007



Daniel J. Ryman  
Patent Examiner  
AU 2616

